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USING THE 'KANO MODEL' TO IMPROVE THE SERVICE QUALITY OF LOW-COST AIRLINES IN THE MIDDLE EAST

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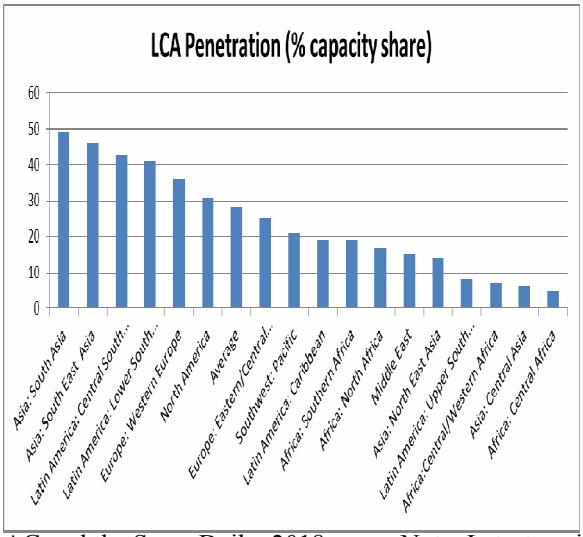
ABSTRACT
This paper aims to improve passengers' level of satisfaction with low-cost airlines (LCA) serving the Middle East. The 'KANO model' is used to identify the primary requirements of passengers with an aim to enhance the overall airline experience. Passengers flying on a selected number of leading low-cost airlines serving the Middle East formed the sample of the survey. Coefficients were calculated to demonstrate the satisfaction and dissatisfaction of passengers with LCA services, and the results were depicted on a quadrant scale. The primary findings confirmed that in-flight services' dimension (seating comfort-cabin staff service-in-flight entertainment-quality of food and beverage) and air ticket prices (value for money dimension) dominated the five most influential factors affecting customer satisfaction. All service quality attributes were categorized according to the KANO model (Must be- one dimensional – attractive- indifferent). Finally, a number of recommendations were formulated to help low-cost airline managers design effective quality development strategies.
Keywords: Service quality -Customer requirements - Kano model - Low-cost airline –Product development

INTRODUCTION

The rise of low-cost airlines in the Middle East

Low-cost airlines (LCA) can be defined as: "An airline that provides the basic air travel services with no additional amenities (Samy, 2013). During the last decade, the impact of low-cost airlines (LCA) on the aviation market was remarkable. The penetration of LCA caused major carriers to cut-down their flight frequencies, close hubs and suspend their air services to some destinations. The slowing global economy along with the high fuel costs both had negative impacts upon airline profit margins. Lately, only LCA models were able to achieve constant profits. The Official Airline Guide (OAG) reported that Middle Eastern low-cost airlines have grown at an annual rate of 52 %, whereas traditional carriers are only growing at an average rate of 7 % annually (SIS international research, 2018).

In the Middle East, Air Arabia was the first low-cost airline to be launched in the MENA region (Middle East and North Africa) in 2003. Since the launch of Air Arabia, many LCA models were founded in the region at various success levels. The most noticeable Middle East-based LCAs are (in a chronological order): Air Arabia-2003, Jazeera Airways, 2004, Flynas 2007 and Fly Dubai-2008 (Aljazira Capital, 2013). Recent statistics show that the low-cost airline (LCA) sector is continuously growing worldwide. The seat capacity of low-cost airlines grew by 10.2% over the last ten years (tripled their size from 575 million seats in 2007). The LCA market share rose from 16.5% in 2007 to 28.7% in 2017. The LCA traffic now spreads around 160 global nations. Latest statistics confirmed that the LCA penetration varies among various regions (as shown in figure 1). LCAs are now responsible for more than one passenger in every four seats being flown. LCAs continue to mature in established markets and continue as well in emerging economies. The LCA penetration by capacity worldwide can be ranked as follows: (share of total seats) 1-South of Asia: 49.3%, 2-South East Asia: 46.3%, 3-Central America: 42.9%, 4-Latin America: lower South America: 40.9%. However, LCAs in the Middle East are still in the mature stage (approximately 15% market share - (-1.2%) capacity decline) (OAG and the Swan Daily, 2018).



Source: OAG and the Swan Daily, 2018 - Note: Latest available data

Figure 1- Low cost airlines by capacity share- 2017

It's clear from the previous results that LCAs in the Middle East are among the carriers that account for a smaller market share compared to leading regions of the world. Many reasons could be responsible for these results: 1- The region is substantially in the stage of economic development. 2- Restrictive air regulations (the lack of air transport liberalization). 3-The quality of LCA (the service quality strategies of LCA services are below industry standards).

Low-cost airlines and customer satisfaction

No doubt that satisfaction is correlated with feelings of acceptance, happiness, relief, excitement, and delight. Satisfaction is an individual feeling of pleasure or disappointment resulting from comparing a product's perceived performance in relation to his or her expectations (Charoensettasilp and Wu, 2013). Corporations are continuously adopting quality management programs as a way to improve their product performance and hence customer satisfaction (Kotler et.al. 2002). The subject of LCA quality is widely considered a topic that raises a lot of criticism. It's important to note that LCA tend to lower fares comparing to traditional airlines that consider themselves capable of making millions of passengers satisfied with their overall level of service quality. LCA offer 'value for money' services which guaranteed a certain level of satisfaction (Samy, 2008). Recently, passengers play a significant role in service product innovation. There are three methods to engage users in service design and innovation: 1-Listening to customers, 2-Understanding customers, 3-Having a dialogue between service providers and customers (Kastama and Toivonen, 2012). Leading low-cost airline business models, such as Southwest, heavily rely on passenger needs and priorities for each market segment (Hauser, 2019). In a highly competitive environment, where all airlines compete on the basis of air fares and loyalty programs, airlines' competitive advantage lies in the perceived service quality of their offerings. Hence, airlines continuously need to recognize passenger expectations and priorities regarding their overall air travel experience (Chang and Yeh, 2002). The majority of service quality definitions mainly rely on matching customer needs and requirements and how well the delivered service coincides with customers' expectations (Gursoy et.al, 2005). LCA succeeded in lowering air fares to an unprecedented level by rationalizing many of its costs. The following table demonstrates how low-cost airlines managed to lower their costs comparing to traditional air carriers by approximately 60 %. In terms of service quality, differentiating the airline product is very hard to achieve, given the fact that air travel product is highly homogenous. However, the airline passenger experience is still very heterogeneous (Samy, 2008). Despite this fact, LCA models became the leaders of the liberalized market by successfully differentiating their service product. LCA differentiate their brands by providing a cost saving service that is substantial enough to justify the lack of amenities. However, customers can still favorize specific airline that offers the most satisfying level of service quality at the most economical fare. In a highly competitive market, maintaining a high level of service quality is considered as an important strategy for successful LCA (Barnes, 2017).

The following table demonstrates how low-cost airlines were able to reduce the cost per seat comparing to traditional airlines (the cost is reduced from 400$ to only 41$- approximately 60% reduction in air ticket cost).

Table 1- The fare variations between traditional airlines and low-cost airlines

Carrier Type	Cost reduction (%)	Cost per seat
Traditional airline		100
Low-cost airline		
Operating advantages		
Higher seating density	-16	84
Higher aircraft utilization	-3	81
Lower salaries	-3	78
Use of secondary airports	-6	72
Outsourcing/fleet/service	-2	70
Minimal station costs	-10	60
No-free in-flight catering	-6	54
Marketing differences		
No agent commissions	-8	46
Reduced reservation costs	-3	43
Other advantages		
Smaller administration costs	-2	41

Source: Samy (2008)

The low-cost airline strategy is clearly a price-based competitive one. The low prices of air tickets are seen as primary influence on passengers' decisions to fly with LCA, but still not substantial enough to guarantee their satisfaction with their service quality standards. On the other hand, consumers will still take into account the service quality elements of the air travel experience when comparing between several low-cost airlines in the market. Therefore, it is evident that maintaining a high level of service quality is a fundamental strategy in highly competitive LCA industry (An and Noh, 2009; Gilbert and Wong, 2008; Park, Robertson and Wu, 2006). Lately, EasyJet (a leading European LCA) is investing in service quality as a way to increase its market profitability over its competitors. Ryan air (the pioneer Irish LCA) is following the same path by restructuring their customer service strategy, baggage allowance policies and redesigning their website. These changes reflect how key low-cost airlines in the market are starting to learn the value of service quality more than ever (Barnes, 2017). In the following table, the top quality rated airlines of the world are ranked according to Skytrax (the leading customer review site). The survey covered 335 airlines and more than 20 million respondents were counted in the final results (Business insider, 2018).

Table 2- The top quality rated low-cost airlines in the world

Ranking	Airline	Country of origin
1	Air Asia	Malaysia
2	Norwegian	Norway
3	Easy Jet	United Kingdom
4	JetStar Airways	Australia
5	Air Asia X	Malaysia
6	WestJet	Canada
7	IndiGo	India
8	Southwest	United States
9	Eurowing	Germany
10	Scoot	Singapore
11	Ryanair	Ireland
12	Jetstar Asia	Singapore
13	Peach	Japan
14	Jet2.com	United kingdom
15	Vueling Air	Spain
16	PAL Express	Philippines
17	Citilink	Jakarta
18	Air Canada Rouge	Canada
19	West Air	China
20	Nok Air	Thailand

Source: Skytrax (2018)

It's clear from the previous table that none of the Middle East based LCA are among the world top rated airlines in terms of service quality. This fact assures that Arab low-cost airlines need to enhance its service quality levels in order to cope with the international market standards. This paper will focus on the quality attributes associated with Middle Eastern LCA with an aim to provide effective development guidelines.

Table 3- The top quality rated low-cost airlines in the Middle East

Ranking	Airline	Country of origin
1	Flynas	Saudi Arabia
2	Fly Dubai	United Arab Emirates
3	Air Arabia	United Arab Emirates
4	Jazeera Airways	Kuwait
5	Flyadeal	Saudi Arabia

Source: Skytrax (2018)

The previous table ranked Arab airlines in the Middle East region according to service quality. It's clear that all leading low-cost airlines of Middle East are based in the UAE as a leading country in this field in the MENA region. The Middle East includes a multitude of LCA, most notably: Air Cairo (Egypt) - Felix Airways (Yemen) - Up (Israel)-Sama(Saudi Arabia) - Flynas (Saudi Arabia)- Bahrain Air (Bahrain)- Ease on air (Iran)- Air Blue (Pakistan).

The KANO model

In 1984, the KANO model was first created by 'Noriaki Kano'. This quality model is more relevant today due to the growing fierce competition in the global marketplace. Customers are also becoming more demanding than ever in an environment that provides countless product service choices (Verduyn, 2013). The model measures customers' impressions and the influence of product / service quality on customers' perceived satisfaction. The model classifies requirement attributes that affect customer satisfaction (Huang, 2017). This model aims to connect the fulfilled requirements of customers by products/services with the level of satisfaction. The KANO model categorizes the requirements into the following main types (each type has its own letter abbreviation):

-Main quality attributes include:

1- Must be requirements: (M.)

They represent the basic requirements of a product/service. They are the minimal criteria that should be fulfilled to guarantee customer's satisfaction at a neutral level, in other words, their full overwhelming impression (e.g. airport check-in- reservation- security measures).

2-One dimensional requirements: (O.)

They are the needs that have a strong relationship with customer satisfaction. They should be prioritized by managers in both product design and service delivery. (e.g. customer service- baggage handling-passenger lounges).

3-Attractive requirements: (A.)

The attractive requirement elements represent an area where the customers are delighted with the products/services provided. Their dysfunction will not cause any dissatisfaction. They are an added value to the whole customer experience (CX) (Qiting, et.al. 2013). (e.g. special in-flight giveaways and rewards)

Other quality attributes include:

4-Indifferent requirements: (I.)

These are indifferent features from customers' perspective. Their absence will not affect their overall level of satisfaction (e.g. diversity of duty free items- staff's ability to speak foreign language).

5-Questionable requirements: (Q.)

This category represents contradictory responses to the various quality attributes according to customer responses (Huang, 2017).

6-Reverse requirements: (R.)

This category represents a service quality attribute that is not wanted by customers and that they strongly expect the reverse (Qiting, et.al. 2013).

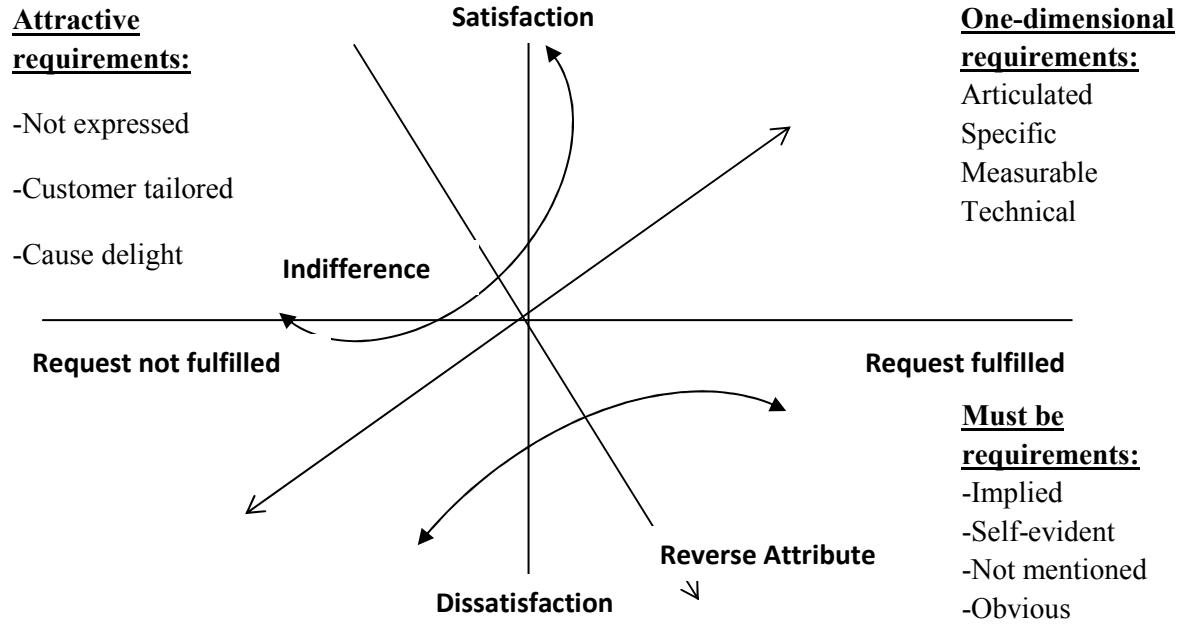


Figure 2- The KANO model

Source: Modified from Kano et.al. (1984) and Huang (2017)

As shown in figure 1, the horizontal axis represents the extent to which a product / service fulfill customer requirements, while the vertical indicates
the extent to which customers are satisfied with the perceived product or service.

METHODOLOGY

A-Research objectives

The research seeks to measure passengers' impressions towards various low-cost airline services with an aim to classify their requirements into three main categories: 'Must be' (M), 'One dimensional' (O) and 'Attractive' (A). The analysis helps recognize which service quality attributes have the most impact on passengers' level of satisfaction and to which extent it influences their overall impression towards the experience. Another objective is to test the relationship between various service quality dimensions, the overall level of customer satisfaction and the value for money element. Finally, the research aimed to prioritize the service quality attributes that need to be improved by low-cost airlines in order to enhance the overall customer experience.

B-Research model

The research survey is designed according to the Kano service quality model for each customer requirement. The questionnaire contains pairs of questions with an aim to explore respondents' satisfaction levels (Löfghen and Witell, 2008). According to the Kano model, respondents were asked a functional and dysfunctional form of the questions for each requirement. A sample of survey questions is demonstrated in the following:

-What do you think if low-cost airlines provided a wide range of in-flight entertainment offerings? (The 'functional' form of the question)

-What do you think if the LCA did not offer any form of in-flight entertainment? ('The dysfunctional' form of the question).

The survey covered the most distinguished and well established low-cost airlines in the Middle East, namely (in alphabetic order): Air Arabia (UAE) - Air Cairo (Egypt) - Felix Airways (Yemen) - Fly Dubai (UAE) - Flynas (Saudi Arabia) - Jazeera Airways (Kuwait) - UP (Israel).

Table 4 – Design structure of the passenger survey

Dimension	Code	Attribute
In-flight services (IS)	**IS1**	Seat comfort
	IS2	Cabin staff services
	IS3	Food and beverage quality
	IS4	In-flight entertainment
	IS5	WIFI connectivity
Ground services (GS)	**GS1**	Reservation
	GS2	Check-in and boarding
	GS3	Baggage handling
Value for money (VM)	**VM1**	Air ticket prices
	VM2	On-board food and beverage prices

As shown in table 4, the respondents were asked to reply to 20 paired questions regarding the three dimensions that contain 10 service quality attributes. Additional questions were asked about their assessment of the overall quality of the LCA experience. The following evaluation table is used to count and summarize the results. Notable in-flight services are all included in the evaluation model given the fact the line between low-cost airlines and traditional airlines continue to blur. Not to forget the fierce competition between LCA that drives them to differentiate their service products by adding more attractive elements without compromising their core low cost values.

Table 5- The Kano evaluation model

Customer requirement ⇨ / ⇩		**Dysfunctional**				
		1	**2**	**3**	**4**	**5**
		Like	**Must be**	**Neutral**	**Live with**	**Dislike**
Functional	**1-Like**	Q	A	A	A	O
	2-Must be	R	I	I	I	M
	3-Neutral	R	I	I	I	M
	4-Live with	R	I	I	I	M
	5-Dislike	R	R	R	R	Q

Source: Qiting and Kubota (2013)

Legend: M=Must be – O=One dimensional – A=attractive- I=Indifferent (No preference) -R=Reverse (can be either way) - Q=Questionable (wrong answers).

It's clear from the previous table that if a respondent chose 'I like it' for the functional question and 'I can live with it' for the dysfunctional question, the attribute under examination will be classified as an 'attractive' (A) requirement. At the end, all the dimensions and their attributes will be classified according to the previously mentioned categories.

The research will also calculate several customer satisfaction coefficients; which include the following:

1- Satisfaction Index (SI): a coefficient which determines the extent of satisfaction that a passenger will have towards a service if their foreseen requirements are met. 2- Dissatisfaction index (DI): a coefficient which describes the level of satisfaction of passengers will have if service quality requirements are not met. The previous two indexes are calculated with an aim to compute the "the Average Satisfaction Coefficient (ASC) which defines the degree by which every service quality attribute influences customer satisfaction.

Mkpojiogu and Hashim (2016) concluded that the three coefficients are calculated by using the following formulas:

$$\text{-Satisfaction coefficient (SI)} = \frac{A+O}{A+O+M+I}$$

$$\text{-Dissatisfaction coefficient (DI)} = \frac{O+M}{A+O+M+I}$$

$$\text{-Average satisfaction coefficient (ASC)} = \frac{(SI+DI)}{2}$$

-The Pearson correlation coefficient was also calculated to test the relationship between all the service quality dimensions, attributes and the overall level of customer satisfaction.

C-**Sampling**

The random sampling technique was chosen for the research. The survey was self-administered at Cairo International Airport from the period of February to April, 2018. A proportion of the sample was also distributed online via various social media sites. Due to the absence of accurate data regarding the total population of passengers flying on Middle East based low-cost airlines and the large size of candidates, a table of sample sizes was used at a confidence level of 95% and a reliability level of ± 5. The maximum sample size was chosen (n=384); and 16 additional questionnaires were added to compensate for non-responses. A sum of 400 questionnaires was addressed to a random sample of employees with a response rate of 50 %, which is acceptable for this type of surveys (Ritchie and Goeldner, 1994). A total number of 201 valid questionnaires were analyzed and statistically tested. The demographic range of respondents are shown table 6.

D- Results and discussion

Descriptive statistics

The majority of respondents were flying on Air Arabia (36.30%) followed respectively by Fly Dubai (34.80%) and Flynas (10.90%). The majority of respondents (55%) were in the age category of 35 to 44 years. 80% of respondents fly from 1 to 3 times per year. 60% of respondents hold a bachelor degree. 55 % of respondents were working in management related areas followed by the education field (40%).

Table 6- Value ranges and scales of the demographic variables

Demographic Variables	Value ranges
Age category	Less than 18/ 18-24/ 25-34/35-44/45-54/55 +
Experience (frequency of air travel / year)	1-3 / 4-6 / 7-11 / 12+
Education level	High school / Bachelors / Master / PhD / Other

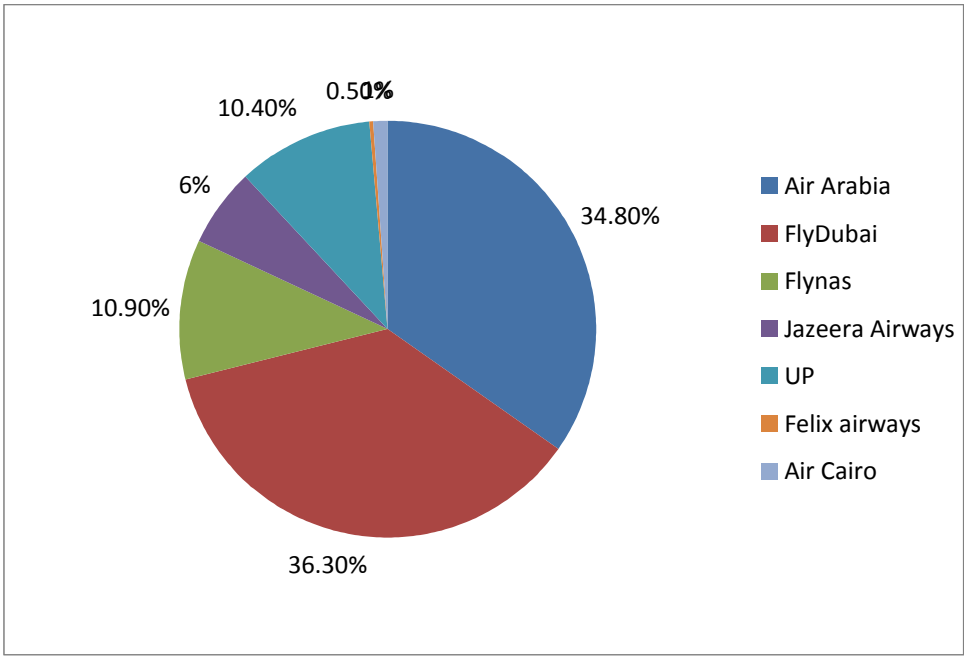


Figure 3- Distribution of low-cost airline passenger responses

The reliability test

Reliability is defined as the tendency toward consistency found in repeated measurements of the same phenomenon. Therefore a reliability test was conducted to assess the quality of the data and Cronbach's alpha was computed to measure the internal consistency of the responses to all items of the survey. The reliability test results (α =0.75) shows that the items exhibit an acceptable level of reliability (α >70).

Customer satisfaction ratings

In table 7, the results of a 5 point Likert-type satisfaction scale that ranges from excellent to poor was used to rate various service quality dimensions. The calculated means prove that the value for money attributes are the highest rated elements of the passenger experience with Middle Eastern LCA followed by the ground services (airport based elements), and finally 'the in-flight services' were the least pleasing dimension for respondents (it's important to note that these type of services are not a priority for this type of passenger experience that rely mainly on low prices to satisfy its target segments). It's clear that all dimensions reflect an average level of service quality according to respondents.

Table 7- The satisfaction ratings of service quality dimensions

Dimensions	Mean	Standard deviation	Ranking
Value for money	2.88	1.43	1
Ground services	3.12	1.28	2
In-flight services	3.32	1.25	3

Note: the value ranges of survey elements / dimensions are on the scale: 1=excellent – 5=poor

Kano model's coefficient of customer satisfaction

In the following table, various service quality attributes were categorized according to the Kano model classifications (Must be- one dimensional- attractive-indifferent-reverse-questionable). The categorization of the attributes depended on the tendency of responses towards a specific category. The SI coefficients, DI coefficients and ASC coefficients were calculated to deduce the most influential service quality attributes according to passengers' perceptions.

Table 8 - Kano requirement categorization and satisfaction coefficients

Element	Evaluation						Total	Category	SI	DI (in minus)	ASC	ASC Ranking
	M	O	A	I	R	Q						
Seating comfort	45	**112**	24	10	8	1	200	**O**	0.71	0.82	0.76	1
Cabin staff service	60	**69**	31	27	11	2	200	**O**	0.53	0.68	0.61	3
Quality of food and beverage	66	8	**86**	18	15	7	200	**A**	0.52	0.41	0.47	5
In-flight-entertainment	68	8	**69**	9	17	29	200	**A**	0.50	0.49	0.49	4
WI-FI connectivity	**88**	8	5	66	19	14	200	**M**	0.07	0.57	0.32	9
Reservation	**89**	15	26	54	10	6	200	**M**	0.22	0.56	0.39	6
Check-in and boarding procedures	**86**	18	26	56	7	7	200	**M**	0.23	0.55	0.39	6
Baggage Handling	**88**	16	27	55	7	7	200	**M**	0.23	0.55	0.39	7
Air ticket prices	42	**83**	46	23	5	1	200	**O**	0.66	0.64	0.65	2
On-board F& B. prices	45	24	39	**84**	7	1	200	**I**	0.32	0.35	0.34	8

Notes: 1-M=Must be – O=one dimensional- Attractive- Indifferent- Reverse - Questionable – SI=Satisfaction index- DI=dissatisfaction index- ASC= Average satisfaction coefficient

2- The bold values represent the highest scores for each service quality element.

The ASC ranking shows the impact of various 'service quality attributes' on customer satisfaction. It's clear that in-flight services' dimension (seating comfort-cabin staff service-in-flight entertainment-quality of food and beverage) and air ticket prices (value for money dimension) dominated the five most influential factors affecting customer satisfaction. These findings assure that although low-cost airlines rely on air ticket prices as their core competitive advantage, still the quality of airline services are a major dimension that drive passengers to choose a specific airline. A blend between a low-price and an adequate level of service influences various passenger choices. Passengers can tolerate the lack of services to a certain extent.

The scatter diagram depicts the various service quality attributes according to the Kano model categories. The attributes were placed on the scale according the results of the satisfaction (SI) and dissatisfaction (DI) coefficients where the X axis represents the dissatisfaction scale while the Y axis represented the satisfaction scale.

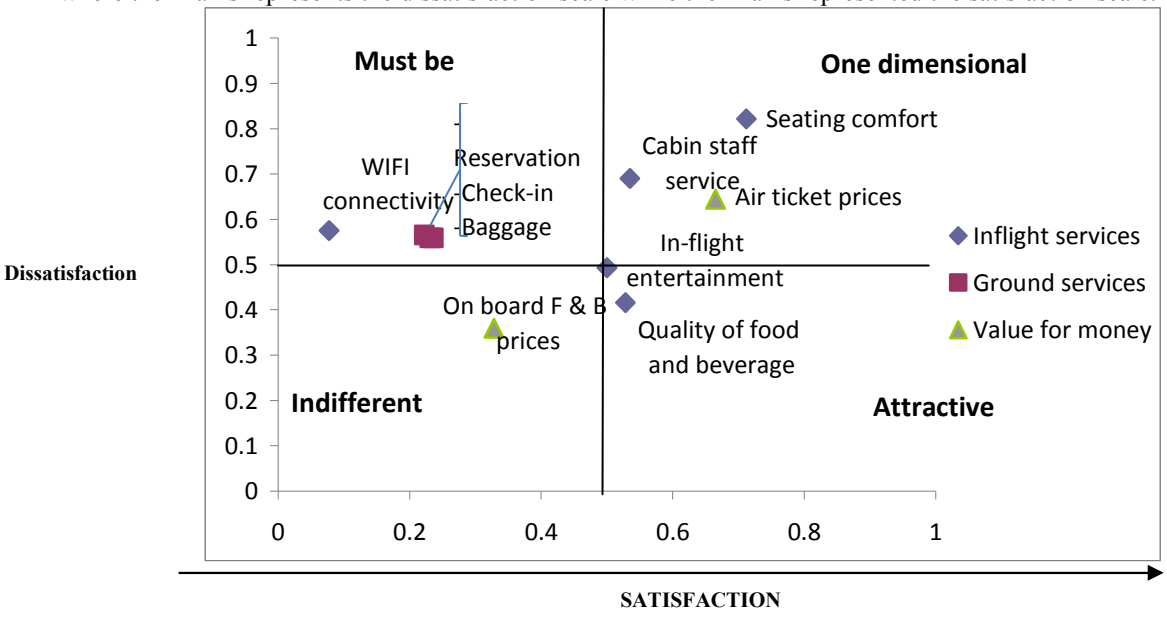


Figure 4- Customer satisfaction coefficient scatter diagram

All the service quality attributes illustrated in the scatter diagram are according to computed satisfaction coefficients (SI, DI and ASC) that aim to clearly depict passenger requirements on the KANO quadrant of requirements.

Measuring the relationship between service quality dimensions

As shown below, the Pearson correlation confirms that all service the quality dimensions have a positive relationship with each other. The strength of these relationships varies according to the effect size scale: < 0.2 =weak, 0.2- 0.4=moderate and 0.4<= strong.

Table 9- Pearson correlation coefficient results

Service quality items	Overall satisfaction	Ground services	In-flight services	Value for money
Overall Satisfaction	1			
Ground services	0.31056306**	1		
In-flight services	0.419455861***	0.478244087***	1	
Value for money	0.393104747**	0.532388805***	0.65196707***	1

Note: **=moderate correlation- ***=strong correlation

The strongest relationship is between in-flight services and value for money (r=0.65), followed by the correlation between ground services and value for money (r=0.53). These results assure that the value for money dimension has the most influential impact on the customer experience with LCA (on-board and in the airport). It is also clear that there is a strong correlation (r=0.41) between the overall level of satisfaction of respondents and in-flight services.

Conclusions

Low-cost airlines are increasingly playing an influential role in the air transport market worldwide. The low-cost concept represents the core strategy of the airline business model, but it's important to note that the 'no frills' approach is not substantial enough to ignore the service quality standards of this business model.

Although Middle East-based low-cost airlines are growing at high rates, still they account for a limited share of the world seat capacity. In terms of quality, they do compete with leading low-cost airlines of the world according to customer review consensus. Customer satisfaction ratings indicate that the leading Middle Eastern LCA provide an average level of service quality experience for passengers in all predefined dimensions (in-flight services- ground services- the value for money aspect). An average level of service quality is not acceptable in today's fierce competition. The mean scores of the perceived quality ratings indicate that respondents were mostly pleased by the value for money offerings of Middle Eastern LCAs followed by ground services and in-flight services (the least pleasing dimension for respondents).

Applying the Kano service quality model to the selected sample of LCA proved that ground services (reservation-check-in and boarding – baggage handling) dominated the 'must be' requirements followed by the WIFI connectivity. Respondents were 'indifferent' regarding the cost of in-flight food and beverages (in-flight catering is not a priority for 'no frills' passengers). In-flight services dominated the 'one dimensional' requirements (the elements that have the strongest effect on customer satisfaction) which included: seating comfort (seat pitch) and cabin staff services. The customer service is always a fundamental aspect of successful low-cost corporations. The 'one dimensional' requirement also included the air ticket prices (the core strategy of all LCA). The results indicate that the quality of in-flight services along with the cost of air tickets both have a primary influence on customer satisfaction (the air ticket prices are not the sole factor that affect passenger satisfaction).

'Attractive requirements' include both in-flight entertainment and quality of food and beverages. The lacking of attractive services will not largely impact dissatisfaction levels but their presence will surely delight passengers. Respondents perceived on-board food and beverage prices as 'indifferent'. The customers of 'no frills' airlines are not primarily concerned with airline catering as they are willing to trade-off the value of food and beverages, or any supplementary features in exchange of acquiring lower ticket prices.

Results also indicate that there is strong correlation between 'the value for money' dimension and both the service quality of in-flight and ground services. These strong relationships assure that the low prices of air tickets are not a substitute for high quality low-cost airline services.

Recommendations

LCA managers should largely invest in improving service quality to cope with world standards. Service quality development can be guided by the Kano model classification of passenger requirements. The development priorities should be ranked as follows: Must be > One dimensional > Attractive > Indifferent requirements. Therefore, low-cost airline managers should be guided by the formerly cited sequence to formulate their service quality strategies.

Table 10-Quality development priorities for Middle East based LCA

Service development priority ranking			
1	**2**	**3**	**4**
Must be	**One dimensional**	**Attractive**	**Indifferent**
-Check-in and boarding procedures -Baggage handling -Reservation -WI FI connectivity	-Seating comfort -Air ticket prices -Cabin staff service	-In-flight entertainment -Quality of food and beverage	-F & B prices

Most LCA rely on secondary airports for cost saving purposes, but it's important to verify whether these airports provide adequate facilities for passengers; especially when there is a possibility to choose between them in any destination. Some secondary airports underperform in terms of service quality regarding the basic ground services. Decision makers should try to avoid adding those under-performing secondary airports to their airline network. Still, the reliance on secondary airports remains an effective cost saving strategy for low-cost airlines.

It's clear that WI Fi connectivity has become a 'must be' customer requirement for passengers in today's technologically driven communities. This internet service will surely delight passengers using LCA especially when

in-flight entertainment is not provided with a vast array of choices. The millennial generation considers it as a basic need.

'One dimensional' requirements should be the core of any service development strategy as they largely influence the customer experience with LCAs. Adjusting the seating density of various aircrafts will provide passengers with better seating comfort (seat pitch / leg-room). Balancing between relatively high level of seat density, seating comfort and offering low-ticket prices is a dilemma for all LCA managers. High seat density will help airlines offer lower ticket prices, but ignoring passenger comfort will surely reduce customer satisfaction levels. On the other hand, exceptional customer staff service can boost passenger satisfaction levels more than any other service element. Extensive and well-designed training programs for the cabin crew can have great outcomes in terms of overall satisfaction with the LCA experience. Cost rationalization training programs can be very lucrative for the airline operations and can contribute to the growth of future profits. The human input can help compensate for any occurring service defects (especially with a no 'no frills' model).

LCA managers should develop a number of 'attractive' requirements in order to exceed customer expectations. The real challenge is to enhance the airline passenger experience while maintaining competitive price levels in the market. For instance, providing high quality food and beverages can justify the high cost of some items available on-board. This also applies for providing an appropriate range of in-flight entertainment on relatively medium to long haul destinations.

The strong correlation between the value of the airline experience and both in-flight and ground products indicate that managers should monitor the level of passenger tolerance regarding the limitation of various service features. The Kano Average score coefficient (ASC) rankings can be an effective guide in recognizing passengers' perception towards service quality elements. The influence of various airline service products on customer satisfaction should be taken into account in the product design process of low-cost airline services.

A well designed passenger experience must a have an optimum blend of service quality standards at an acceptable value for passengers. LCA brands should reflect the 'no frills' air travel experience without ignoring the need to delight passengers. In case several LCAs offer almost the same prices on a given route, managers will be forced to lure customers with service quality elements that fulfill their various requirements rather than relying solely on the cost as a competitive advantage.

استخدام "نموذج كانو" لتحسين جودة خدمات شركات الطيران منخفضة التكاليف في الشرق الأوسط

حسام سامي أحمد

يهدف هذا البحث إلى تحسين مستوى رضاء الركاب عن خدمات شركات الطيران منخفضة التكاليف في الشرق الأوسط. يستخدم "نموذج كانو" للتعرف على المتطلبات الأولية للركاب بهدف تطوير التجربة الشاملة لشركات الطيران. تم تشكيل عينة البحث من مجموعة ركاب مسافرين على عدد من الشركات منخفضة التكاليف الرائدة في الشرق الأوسط. تم استخدام معامل الارتباط لقياس رضاء الركاب عن الخدمات الشركات المختارة وعرضت النتائج على مقياس رباعي الأبعاد. تشير النتائج الأولية إلى أن البعد الخاص بالخدمات الجوية (الراحة داخل الكابينة– خدمة الضيافة– الترفيه على متن الرحلات– جودة الأغذية و المشروبات) و أسعار تذاكر الطيران (البعد الخاص بالقيمة مقابل السعر) استحوذت على العوامل الخمسة الأكثر تأثيراً على رضاء العملاء. صنفت كل عناصر الجودة طبقاً "لنموذج كانو" (عناصر ضرورية–عناصر أحادية البعد–عناصر جاذبة–عناصر غير مهمة). تم في النهاية وضع عدد من التوصيات لإرشاد المديرين بشركات الطيران منخفضة التكاليف نحو أفضل الطرق لتصميم استراتيجيات فعالة لتطوير جودة الخدمات.

الكلمات الدالة: جودة الخدمة– متطلبات العملاء – "نموذج كانو"– شركات الطيران منخفضة التكاليف– تطوير المنتج

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